

when they are interpreted in accordance with the breadth to which they are fairly, legally and equitably entitled.

Claims

[c]

1. A digital computer system for displaying of computer information in a page-like format, comprising:
 - (A) a computer processor;
 - (B) a computer memory electrically connected to said computer processor;
 - (C) a means for receiving a document into said computer memory;
 - (D) a document converter for converting said received document into a page view format;
 - (E) a page turner for animating a page object such that said page object appears to turn in a paper like manner so as to present a new page object; and
 - (F) a computer display for displaying said page object and said new page object.

[c]

2. A digital computer system as recited in claim 1, further comprising user controls in communication with said processor for controlling said display of said page object.

[c]

3. A digital computer system as recited in claim 2, wherein said user controls are selected from the group consisting of: a keyboard input device, a mouse input device, a touch screen input device, a track ball input device, a soft button displayable on said computer display, and a sound input device.

[c]

4. A digital computer system as recited in claim 1, wherein said means for receiving a document is selected from the group consisting of: a computer network data source, a CD-ROM device, a magnetic media storage device and an electronic memory storage device.

[c]

5. A digital computer system as recited in claim 1, wherein said document converter further comprises an HTML to XML format.

[c]

6. A digital computer system as recited in claim 1, wherein said page object further comprises a wireframe object having a bit-map fixed thereto.

[c]

7. A digital computer system as recited in claim 6, wherein said bit-map is a bit map of a section of said received document.

[c]

8. A digital computer system as recited in claim 1, wherein said page-turner further comprises a means for presenting a curled page in said computer display.

[c]

9. A digital computer system as recited in claim 1, further comprising a means for maintaining hyperlinks in said received document.

[c]

10. A digital computer system as recited in claim 1, further comprising a means for copying information from said page object to said computer memory.

[c]

11. A method of displaying computer information in a page-like format, comprising the steps of:

(A) loading a document from a document source;

(B) converting said loaded document to a page view format;

(C) displaying said converted document on a computer display device;

(D) enabling user controls of said displayed document; and

(E) turning pages of said displayed document under control of said enabled user controls.

[c]

12. A method of displaying computer information, as recited in claim 11, further comprising copying information from said displayed document to a computer memory device.

[c]

13. A method of displaying computer information, as recited in claim 11, wherein said loading a document further comprises:

- (1) receiving a document from a digital computer source;
- (2) identifying said document as a document for page viewing;
- (3) parsing said document identified for page viewing; and
- (4) storing said parsed document in a computer memory device.

[c]

14. A method of displaying computer information, as recited in claim 13, wherein said digital computer source is an Internet data source.

[c]

15. A method of displaying computer information, as recited in claim 11, wherein said turning pages of said displayed document further comprises:

- (1) creating a wireframe object;
- (2) creating a bit-map from said received document;
- (3) fixing said bit-map to said wireframe object; and
- (4) animating said wireframe object, having said bit-map fixed thereto such that said animation turns said wireframe object.

[c]

16. A method of displaying computer information, as recited in claim 15, wherein said creating a bit-map further comprises a bit map of information from said received document.

[c]

17. A process for creating a page-like display format for computer information, comprising:

- (A) receiving a document from a source;

(B) performing a software function on said received document, wherein said software function converts said received document to an alternative format;

(C) performing an operating system function on said alternative format document, wherein said operating system function captures text and formats said captured text into a page view format; and

(D) executing a program to turn said page view formatted text.

[c]

18. A digital computer system, for displaying text, charts and images in a book-like display format, comprising:

(A) a computer processor having both random access memory and a mass storage device;

(B) a video display card, having a graphic processor, in electronic communication with said computer processor;

(C) an operating system, executed on said computer processor, said operating system being capable of managing a graphics user interface;

(D) a computer program being executed on said computer processor, wherein said computer program presents information in a display format which provides for the turning of pages of displayed information in a standard book-like format; and

(E) a high-resolution computer display device having sufficient display resolution to display a two-printed page graphic image in such a manner as headings and format are readable to a user, said high-resolution computer display in communication with said processor.

[c]

19. A digital computer system, for displaying text, charts and images in a book-like display format, as recited in claim 18, wherein said computer program further comprises: calculating the spatial information relationships between adjacent and back-to-back pages for the display in a standard book or magazine format as the pages are turned upon user command.

[c]

20. A digital computer system, for displaying text, charts and images in a book-like display format, as recited in claim 18, wherein said computer program operates to preserve the spatial relationship of one or more aspects of a document.

[c]

21. A digital computer system, for displaying text, charts and images in a book-like display format, as recited in claim 18, wherein said computer program further provides the user access to said information spatial relationships, by recording said spatial relationships in a database.

[c]

22. A digital computer system, for displaying text, charts and images in a book-like display format, as recited in claim 18, wherein said computer program further calculates a three-dimensional representation of said information as pages are turned and incrementally reveals additional information as said pages are turned.

Abstract of Disclosure

[0217] A method and system for displaying information from a digital document in a format that presents a paper page-like appearance, including a full-page display and a side-by-side display. This invention provides a method for converting source documents, such as are common on Web sites on the Internet, into a side-by-side printed page format that maintains hyperlinks, images, sound files, video files, and text, while permitting the user to read the information in the familiar book or magazine style. Moreover, this invention provides a means for turning the pages by providing an animated bit-mapped page, turnable on command of the user

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Claims



[c1]

1. A digital computer system for displaying of computer information in a page-like format, comprising:
 - (A) a computer processor;
 - (B) a computer memory electrically connected to said computer processor;
 - (C) a means for receiving a document into said computer memory;
 - (D) a document converter for converting said received document into a page view format;
 - (E) a page turner for animating a page object such that said page object appears to turn in a paper like manner so as to present a new page object; and
 - (F) a computer display for displaying said page object and said new page object.

[c2]

2. A digital computer system as recited in claim 1, further comprising user controls in communication with said processor for controlling said display of said page object.

[c3]

3. A digital computer system as recited in claim 2, wherein said user controls are selected from the group consisting of: a keyboard input device, a mouse input device, a touch screen input device, a track ball input device, a soft button displayable on said computer display, and a sound input device.

[c4]

4. A digital computer system as recited in claim 1, wherein said means for receiving a document is selected from the group consisting of: a computer network data source, a CD-ROM device, a magnetic media storage device and an electronic memory storage device.

[c5]

5. A digital computer system as recited in claim 1, wherein said document converter further comprises an HTML to XML format.

[c6]

6. A digital computer system as recited in claim 1, wherein said page object further comprises a wireframe object having a bit-map fixed thereto.

[c7]

7. A digital computer system as recited in claim 6, wherein said bit-map is a bit map of a section of said received document.

[c8]

8. A digital computer system as recited in claim 1, wherein said page-turner further comprises a means for presenting a curled page in said computer display.

[c9]

9. A digital computer system as recited in claim 1, further comprising a means for maintaining hyperlinks in said received document.

[c10]

10. A digital computer system as recited in claim 1, further comprising a means for copying information from said page object to said computer memory.

[c11]

11. A method of displaying computer information in a page-like format, comprising the steps of:

(A) loading a document from a document source;

(B) converting said loaded document to a page view format;

(C) displaying said converted document on a computer display device;

(D) enabling user controls of said displayed document; and

(E) turning pages of said displayed document under control of said enabled user controls.

[c12]

12. A method of displaying computer information, as recited in claim 11, further comprising copying information from said displayed document to a computer memory device.

[c13]

13. A method of displaying computer information, as recited in claim 11, wherein said loading a document further comprises:

- (1) receiving a document from a digital computer source;
- (2) identifying said document as a document for page viewing;
- (3) parsing said document identified for page viewing; and
- (4) storing said parsed document in a computer memory device.

[c14]

14. A method of displaying computer information, as recited in claim 13, wherein said digital computer source is an Internet data source.

[c15]

15. A method of displaying computer information, as recited in claim 11, wherein said turning pages of said displayed document further comprises:

- (1) creating a wireframe object;
- (2) creating a bit-map from said received document;
- (3) fixing said bit-map to said wireframe object; and
- (4) animating said wireframe object, having said bit-map fixed thereto such that said animation turns said wireframe object.

[c16]

16. A method of displaying computer information, as recited in claim 15, wherein said creating a bit-map further comprises a bit map of information from said received document.

[c17]

17. A process for creating a page-like display format for computer information, comprising:

- (A) receiving a document from a source;
- (B) performing a software function on said received document, wherein said software function converts said received document to an alternative format;

(C) performing an operating system function on said alternative format document, wherein said operating system function captures text and formats said captured text into a page view format; and

(D) executing a program to turn said page view formatted text.

[c18]

18. A digital computer system, for displaying text, charts and images in a book-like display format, comprising:

(A) a computer processor having both random access memory and a mass storage device;

(B) a video display card, having a graphic processor, in electronic communication with said computer processor;

(C) an operating system, executed on said computer processor, said operating system being capable of managing a graphics user interface;

(D) a computer program being executed on said computer processor, wherein said computer program presents information in a display format which provides for the turning of pages of displayed information in a standard book-like format; and

(E) a high-resolution computer display device having sufficient display resolution to display a two-printed page graphic image in such a manner as headings and format are readable to a user, said high-resolution computer display in communication with said processor.

[c19]

19. A digital computer system, for displaying text, charts and images in a book-like display format, as recited in claim 18, wherein said computer program further comprises: calculating the spatial information relationships between adjacent and back-to-back pages for the display in a standard book or magazine format as the pages are turned upon user command.

[c20]

20. A digital computer system, for displaying text, charts and images in a book-like display format, as recited in claim 18, wherein said computer program operates to preserve the spatial relationship of one or more aspects of a document.

[c21]

21. A digital computer system, for displaying text, charts and images in a book-like display format, as recited in claim 18, wherein said computer program further provides the user access to said information spatial relationships, by recording said spatial relationships in a database.

[c22]

22. A digital computer system, for displaying text, charts and images in a book-like display format, as recited in claim 18, wherein said computer program further calculates a three-dimensional representation of said information as pages are turned and incrementally reveals additional information as said pages are turned.